

Classification and Normalization in Descriptive Summaries

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Data source:

<https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html>

<https://www.gapminder.org/data/>

https://hub.arcgis.com/datasets/252471276c9941729543be8789e06e12_0/geoservice

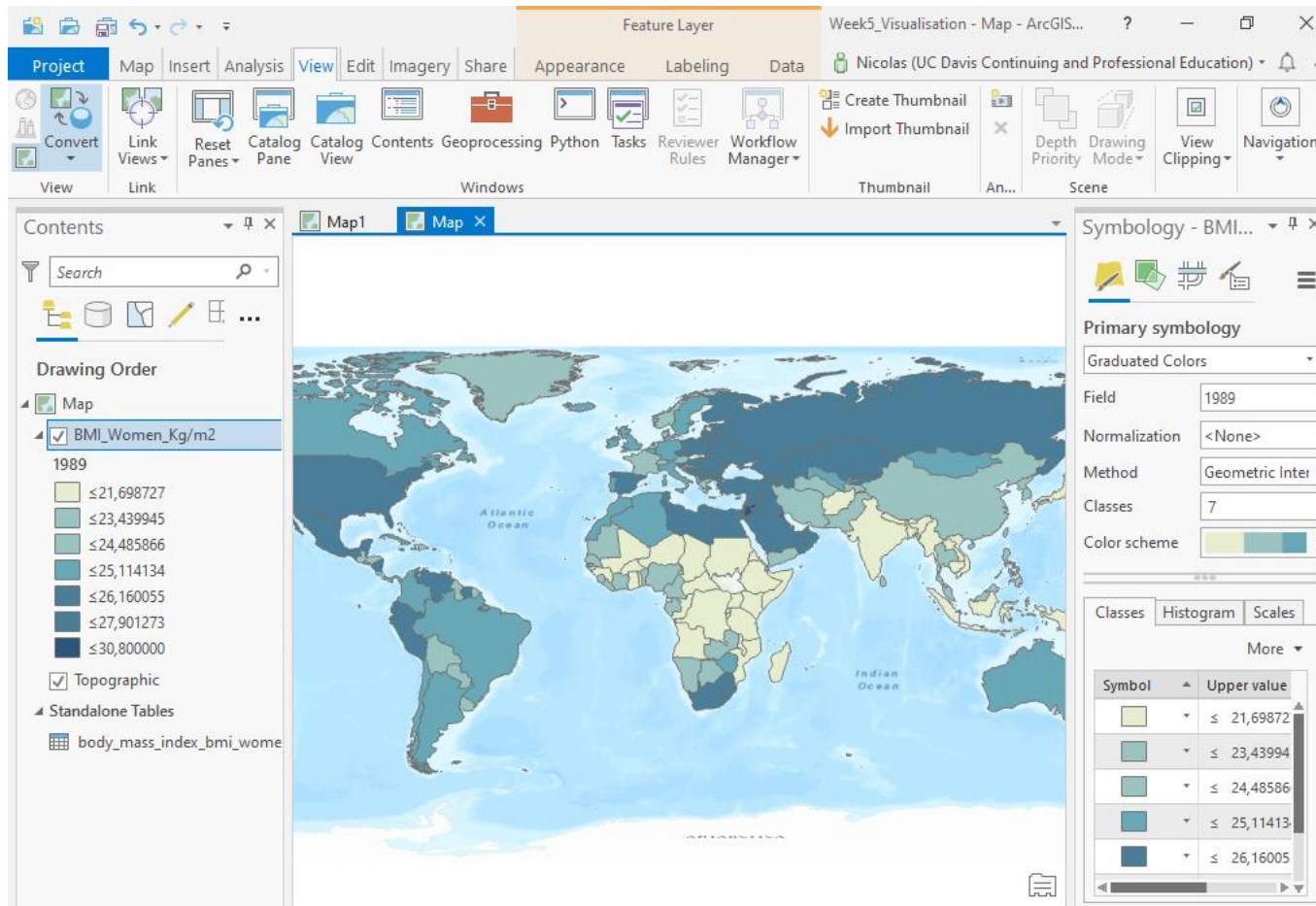
<https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

<https://www.esri.com/arcgis-blog/products/arcgis-pro/analytics/how-to-electo-cubo-gram/?rmedium=redirect&rsource=blogs.esri.com/esri/arcgis/2017/07/17/how-to-electo-cubo-gram>

Analysis steps

- 1) Utilisation of UIA World Boundaries feature geometry to join a dataset of GapMinder Foundation website to produce a map at the global extent
- 2) Utilisation the current count of COVID-19 cases in the United States, from the Center for Disease Control to demonstrate three methods of normalization of this data (normalization by area, population and equal area cartogram)
- 3) Utilization of Hexbins to create a descriptive summary of a region of interest.

1) Utilisation of UIA World Boundaries feature geometry to join a dataset of GapMinder Foundation website to produce a map at the global extent



- The analysis was focused on women BMI (kg/m²) in 1989

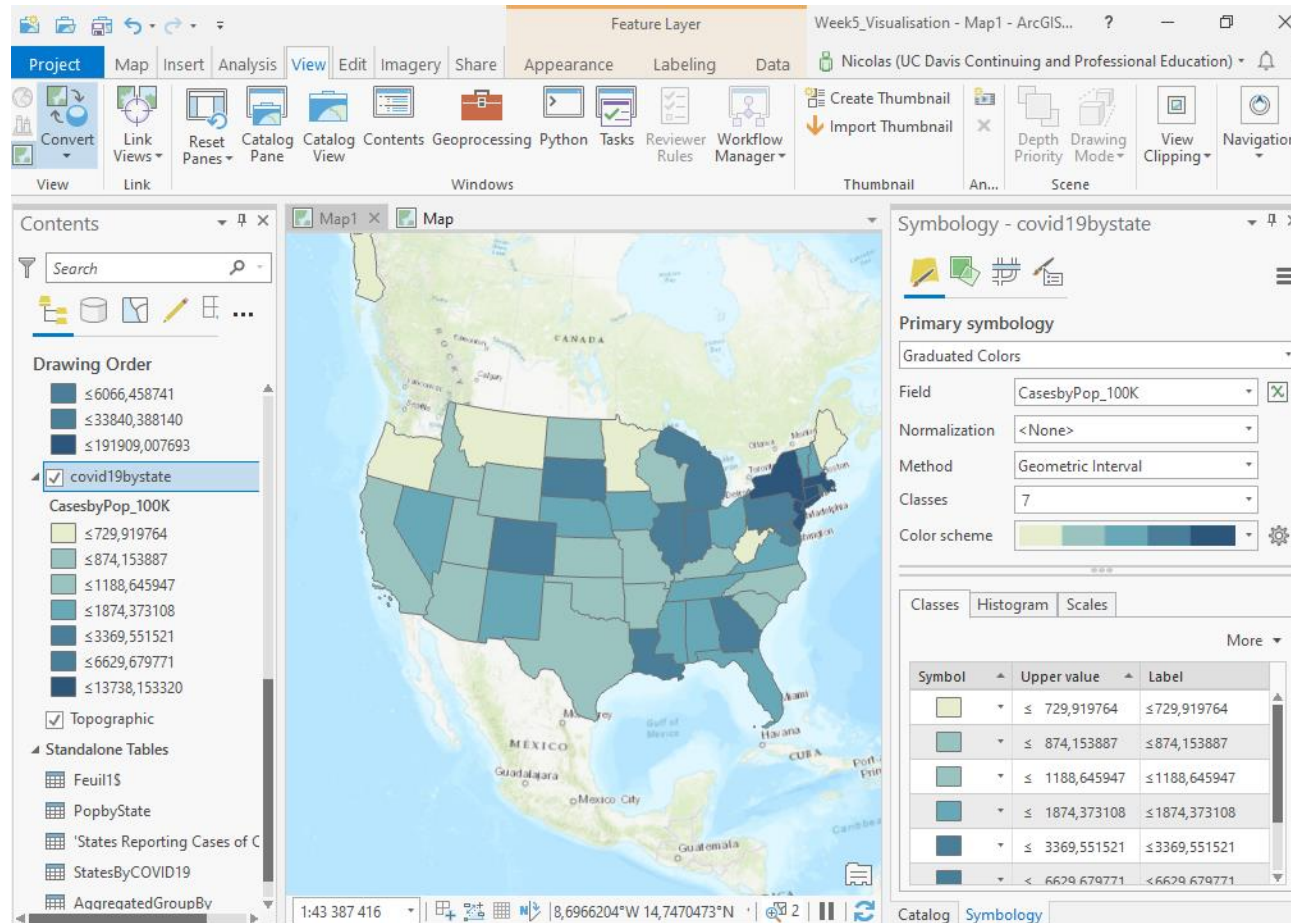
- BMI data was downloaded from:

<https://www.gapminder.org/data/>

- UIA World Boundaries feature was downloaded from:

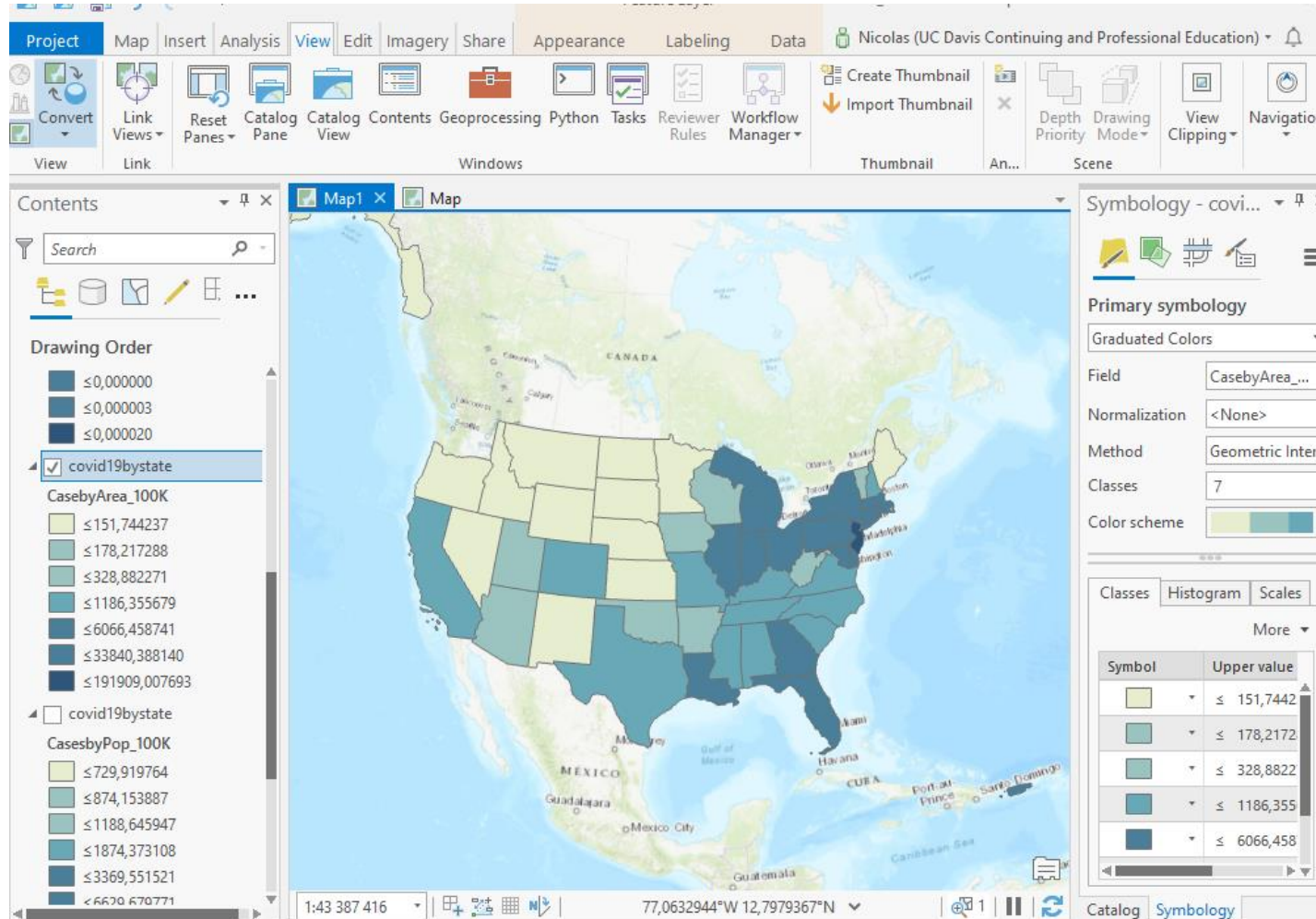
https://hub.arcgis.com/datasets/252471276c9941729543be8789e06e12_0/geoservice

2a) Utilisation of the current count of COVID-19 cases in the United States with data normalization by states population



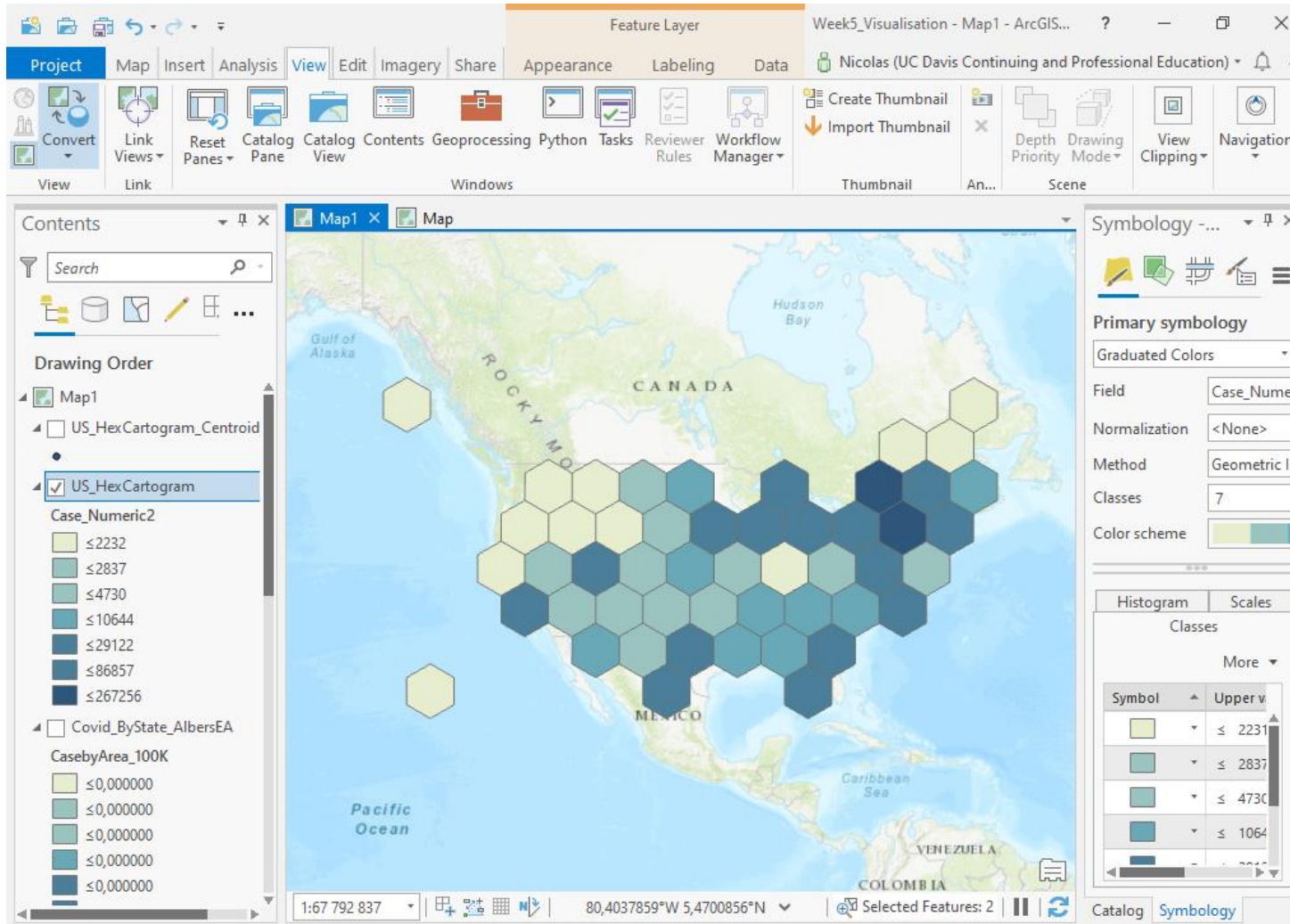
- Coordinate system: North America Albers Equal Area Conic
- COVID-19 cases count normalized by population per 100,000 in 2020
- Color ramp of Geometric Interval with 7 classes

2b) Utilisation of the current count of COVID-19 cases in the United States with data normalization by states area



- Coordinate system: North America Albers Equal Area Conic
- COVID-19 cases count normalized by States area [sq meter] in 2020
- Color ramp of Geometric Interval with 7 classes

2c) Utilisation of the current count of COVID-19 cases in the United States with data normalization by equal area cartogram

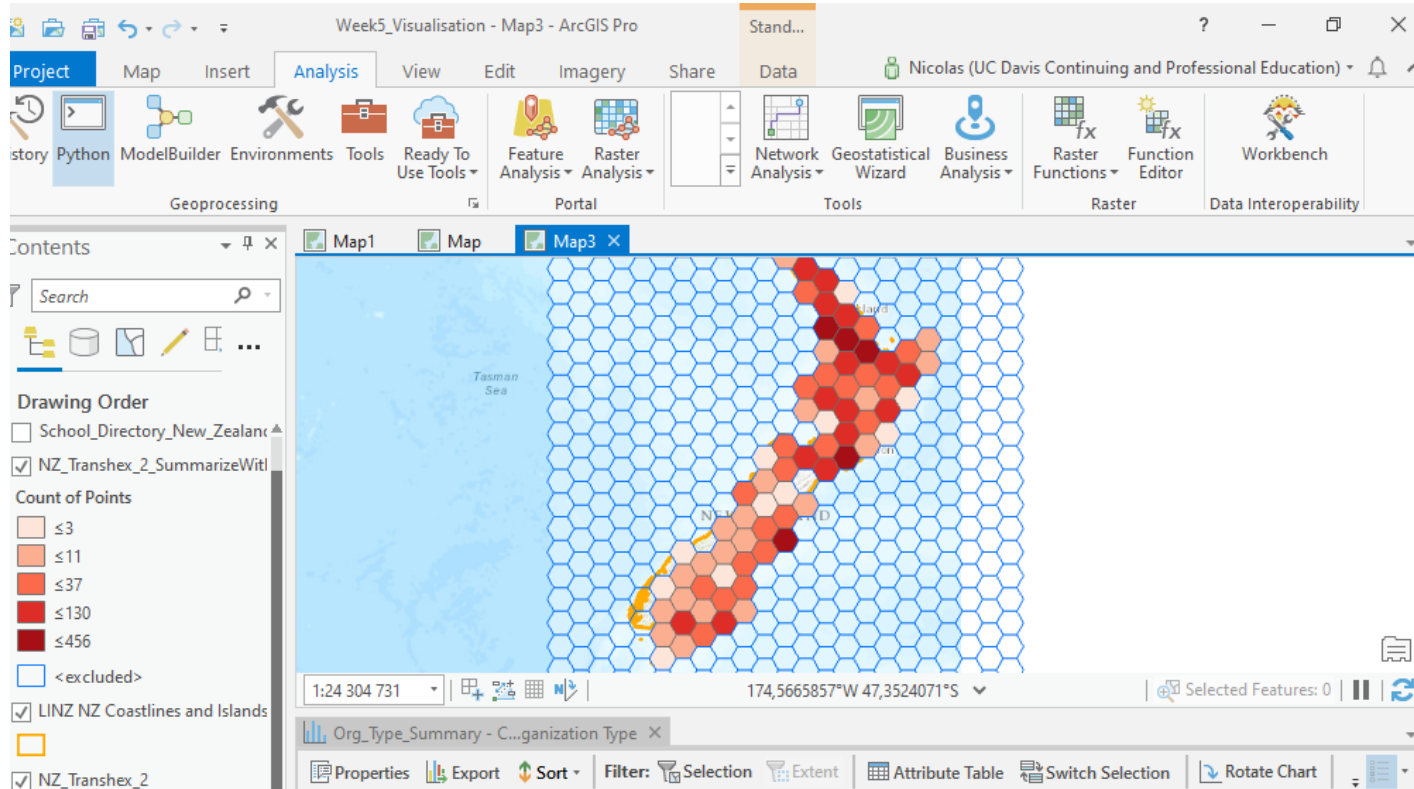


- Coordinate system: WGS 1984 Web Mercator
- COVID-19 cases count normalized by equal area cartogram visualisation in 2020
- Color ramp of Geometric Interval with 7 classes

Tessellation shapefile downloaded from:

<https://www.esri.com/arcgis-blog/products/arcgis-pro/analytics/how-to-electo-cubo-gram/?rmedium=redirect&rsource=blogs.esri.com/esri/arcgis/2017/07/17/how-to-electo-cubo-gram>

Utilization of Hexbins to create a descriptive summary of New-Zealand



- School organization in New-Zealand
- Ramp color and hexagon show the diversity of school organization inside both islands

